

## EARLY LIKOVRSI: THE NEW WHITE VERY EARLY TABLE GRAPE SEEDLESS AND RESISTANT VARIETY

Authors: P. Zamanidis<sup>1</sup>, Ch. Paschalidis<sup>2</sup>, L. Papakonstantinou<sup>3</sup> and Taskos<sup>1</sup>D.

<sup>1</sup> Department of Viticulture of Athens. Institute of Olive Tree, Subtropical Crops and Viticulture, Hellenic Agricultural Organization-DEMETER 1 S. Venizelou Str., 14123, Lykovrisi, Attiki, Greece. Email [panzamanidis@yahoo.gr](mailto:panzamanidis@yahoo.gr).

<sup>2</sup> Technological Educational Institute of Peloponnese, School of Agricultural Technology, 24100 Antimalamos, Kalamata

<sup>3</sup> Agricultural University of Athens, 75 Iera Odos str., 11855, Botanikos, Attica.

Corresponding author : [chpaschal46@yahoo.gr](mailto:chpaschal46@yahoo.gr)

### Abstract:

**Context and purpose of the study** - This paper presents the creation, the study and ampelographic description of the new «Early Likovrisi», that was created (2014) in Greece by Pantelis Zamanidis.

**Material and methods** - The variety was created by crossing with the hybridization method of the varieties "Talisman" and "Florina". "Early Likovrisi" is a cross-breeding between American, European and Far East (*V. amurensis*).

**Results** - The table grape variety is seedless, early-maturing, and resistant. The time between budburst and grape maturity is 126-135 days. The variety is very strong with large shoot growth (2.1 - 3.0 m). The growth of shoots is higher over 95%. The percentage of the fruitful shoots is greater than 90%. The yield is high more than 30-40 t / ha. The average weight of the cluster is 800 g. It has high resistance to fungal diseases, insects, high resistance to low temperatures, high resistance to drought and tolerant to Phylloxera compared to other varieties of *Vitis vinifera*. The shoot and the tip of the young shoot are green-colored and hairless. The mature leaf is medium size, symmetrical, and five-lobed. The flowers are hermaphrodite. The cluster is high sized, conical, winged and of medium density. The berry is big - average berry weight 7 g - with an elliptical shape, green-yellow color, and medium skin. The taste of the berry pulp is characteristic of the «Early Likovrisi» variety. The sugar content is high. Berry seeds are present but not developed. The «Early Likovrisi» variety is suitable for table grape production. It can be used in the genetic improvement of *Vitis vinifera* varieties as a resistance donor, for fungal diseases, insects and low temperature.

**Keywords:** Hybridization, variety, shoots, leaves, inflorescence, cluster, berry.

### 1. Introduction.

## «EARLY LIKOVRSI» -THE NEW TABLE GRAPE SEEDLESS AND RESISTANT VARIETY

Authors: P. Zamanidis<sup>1</sup>, Ch. Paschalidis<sup>2</sup>, L. Papakonstantinou<sup>3</sup>, S., Sotiropoulos<sup>2</sup>, D. Taskos<sup>1</sup> and M. A. Ovechinnikov<sup>4</sup>

<sup>1</sup>Department of Viticulture of Athens, Institute of Olive Tree, Subtropical Crops and Viticulture, Hellenic Agricultural Organization-DEMETER 1 S. Venizelou Str., 14123, Lykovrisi, Attiki, Greece

<sup>2</sup>Technological Educational Institute of Peloponnese, School of Agricultural Technology, 24100 Antimarteos, Kalamata

<sup>3</sup>Agricultural University of Athens, 75 Iera Odos str., 11855, Botanikos, Attica

<sup>4</sup>Volgograd State Agrarian University . Volgograd Russia, 26 University Prospect.

### Introduction

In the multi-year study of the International Grapevine Genetic Bank it has been shown that seedless table varieties with disease and cold resistance are minimal. The major objective of genetic improvement of the vine is the creation of quality, productive and adaptable varieties resistant to phylloxera and mycological diseases, suitable for self-roots crops. The created variety is a complex inter-species Euro American-Azur hybrid. This paper describes the creation and study of the variety "Early Likovrsi".

**Keywords:** hybridization, variety, leaves, inflorescence, berry, seed.



Fig.1 Young shoot of the variety "Early Likovrsi"

### Material and methods

«Early Likovrsi» is a seedless, early-maturing, and resistant table grape variety that was created 2014 in Greece by Pantelis Zamanidis. For the creation of the variety were carried out the following tasks: Harvest grapes stratification seeding, seeding planting, cultivation of hybrid seedlings and selecting the best seedlings for candidate varieties. The variety created by crossing of the varieties "Talisman" and "Florina". The describe the new variety was done by the methodology of the International Organization of Vine and Wine (IOV 2013).

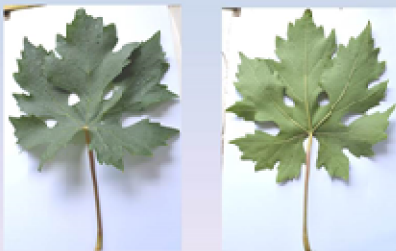


Fig.2 Mature leaves of the variety "Early Likovrsi"

### Results – Discussion

"Early Likovrsi" is a cross-breeding between American and European grapevine species and also of *V. Amurensis*.

The time between budburst and grape maturity is 136-145 days. The variety is strong with large shoots growth (2.1 - 3.0 m). The growth of shoots is higher over 95%. Although shoot vigor is high, the shoot maturation is excellent and the productivity high. The percentage of the fruitful shoots is greater than 90% and the average cluster weight is 800 gr. It is distinguished for, it is resistant to drought conditions and fungal diseases, and it is also tolerant to *Phylloxera vastatrix*. The shoot and the tip of the young shoot are green-colored and hairless. The mature leaf is symmetrical, of medium size and five hard lobes. The flowers are hermaphrodite. The cluster is high sized, conical, winged and of medium density. The berry is big - average berry weight 7 gr - with a sort elliptical shape, green-yellow color, and thin but hard skin. The taste of the berry pulp is characteristic of the « Early Likovrsi » variety. The content of sugar is high. Berry seeds are present but not developed. The « Early Likovrsi » variety is suitable for table and dried grape production. Can be used as a resistance donor, in fungal diseases, low temperature and insects, in the genetic improvement of *vitis vinifera* varieties. The new table grape variety with resistance to phylloxera, fungal diseases and unfavourable cold climatic conditions in line with the methodology of the International Organization of Vine and Wine (IOV 2013).



Fig. 3 Inflorescence, bunch, berries of the variety "Early Likovrsi"

### References

1. Meteorological Station of Kifissia (National Geographic Station 263NE) kifissia.meteoclub.gr
2. Negrul, A.M., 1959 Viticulture from the ampelographical and genetically point of view Moscow (Russian).
3. IOV 2013 Codes des caractères-descriptifs des variétés et espèces de Vitis. Website
4. Pechman J.M. 1979 Breeding field crops. AVI Publishing Company INC, Westport, Connecticut
5. Savvitskakis M. 2010 Ampelography. Topco Publishing
6. Savvitskakis E., 2010 Ampelography
7. Vavilov N.I., 1987 The theoretical background of Genetics. Moscow, Science Publications, 169 p. (Russian)
8. Winkler et al. 1974 General Viticulture University of California Press Ltd. London England
9. Xinias I., 2004 Plant Improvement. Laboratory Exercises. Embryo Publications
10. Zamanidis P., 2005 Vineyard Family (Vitaceae) (Vitis) (Vitis). Agriculture Livestock 3: 22-26
11. Zamanidis P., Paschalidis Ch., 2013 Creation of new wine grape varieties with the hybridization method at the Athens Vineyard Institute. Varieties for producing red wines. Quarterly Edition of ELGO Demetra issue 4, pp. 6-9
12. Zamanidis P. K., Paschalidis Ch., Ivangeogianis D. I. 2017 Genetic improvement of vine varieties with interspecific Hybridization Eurasian union of scientists No 4 (37).